PRIOR ART

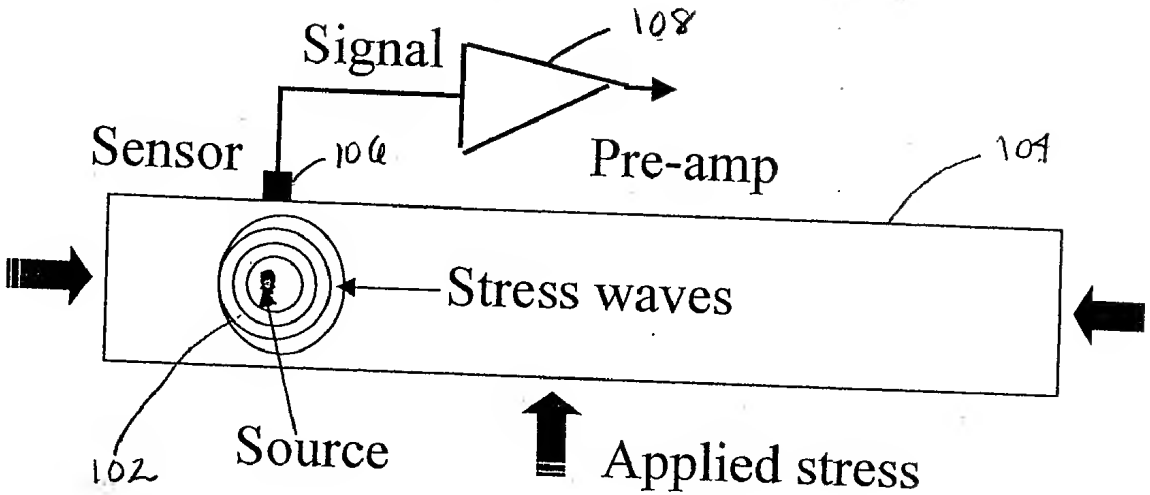

FIGURE 1

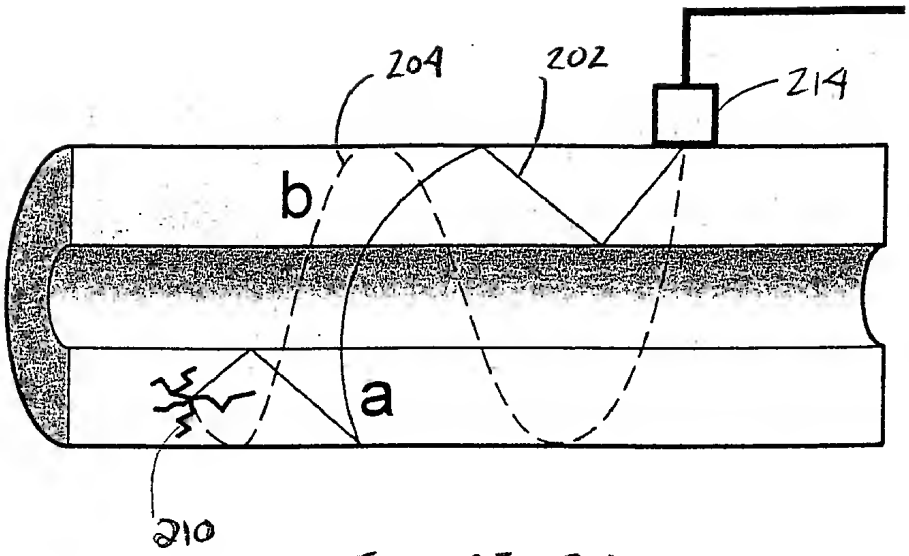

FIGURE 2A

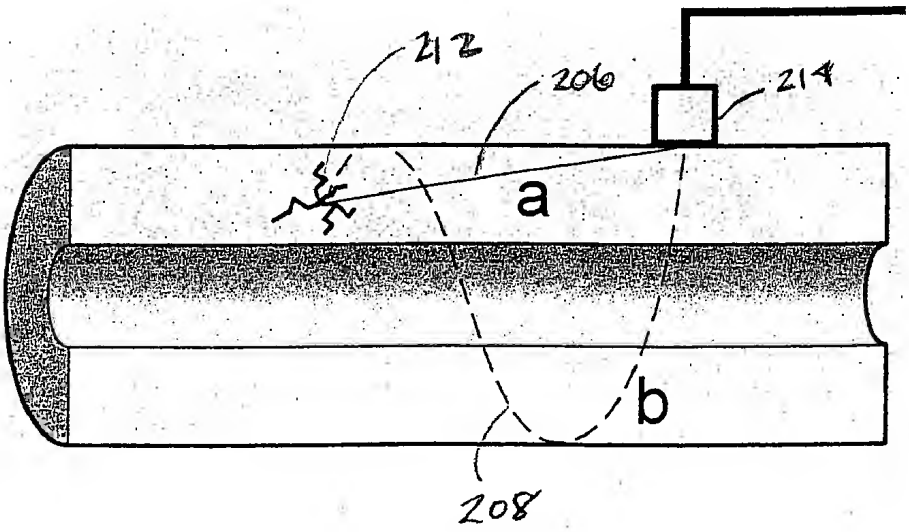

FIGURE 2B

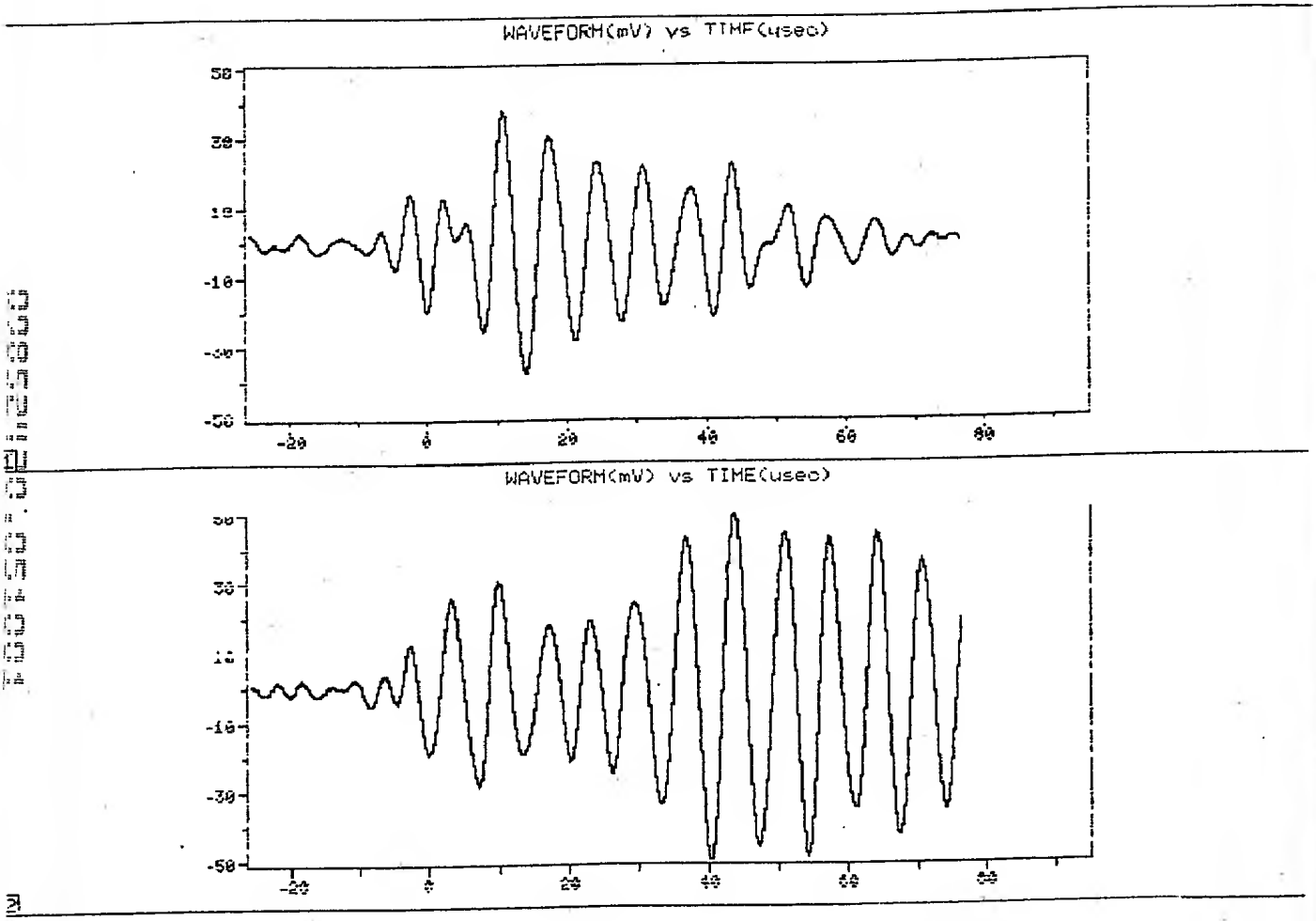
WAVEFORM(mV) vs TIME(usec)
50
30
10
-10
-30
-50
-20
0
20
40
60
80
WAVEFORM(mV) vs TIME(usec)
50
30
10
-10
-30
-50
-20
0
20
40
60
80

FIGURE 3

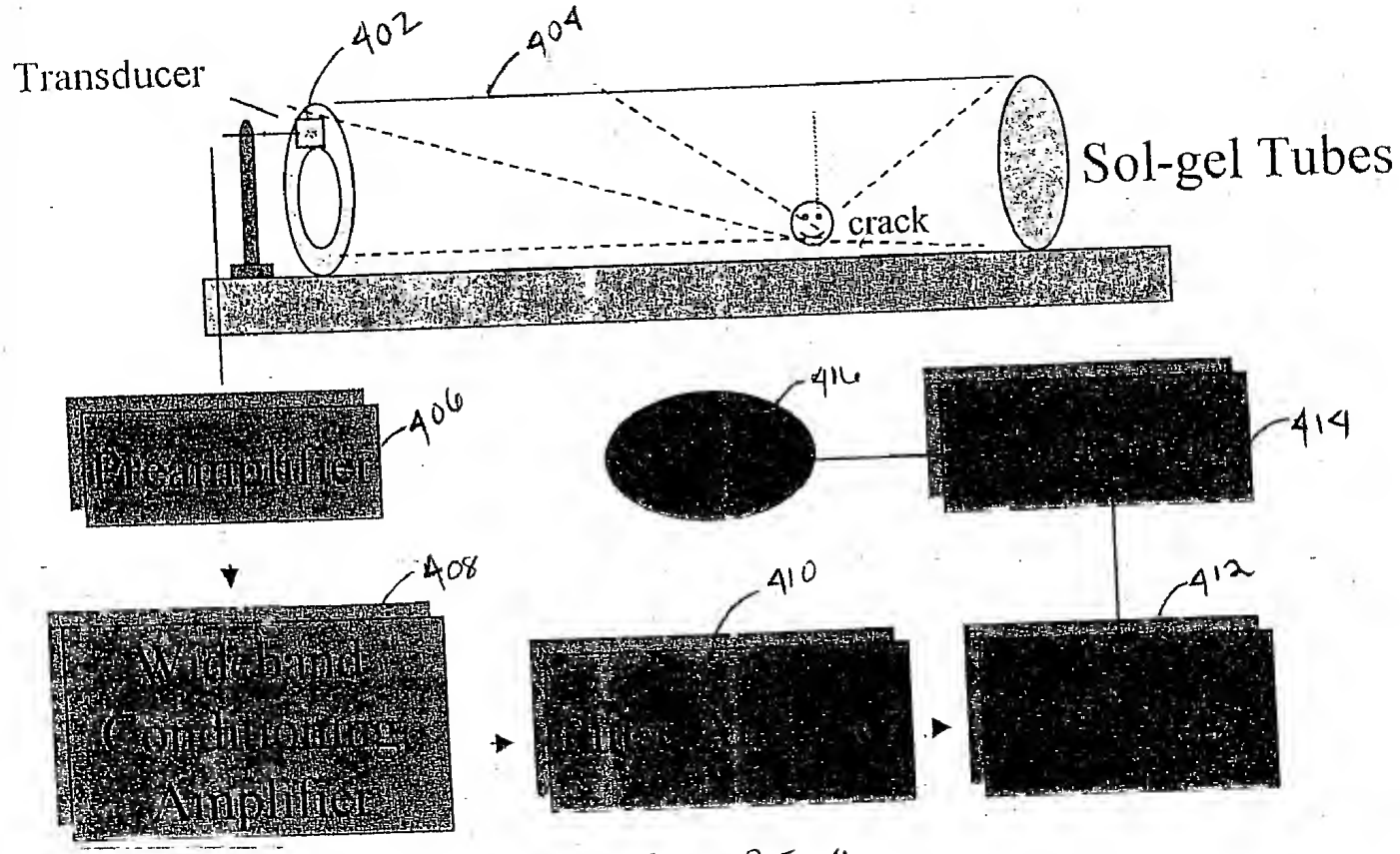
Transducer
402
404
Sol-gel Tubes
crack
406
408
410
412
414
416

FIGURE 4

P0015D "02125868

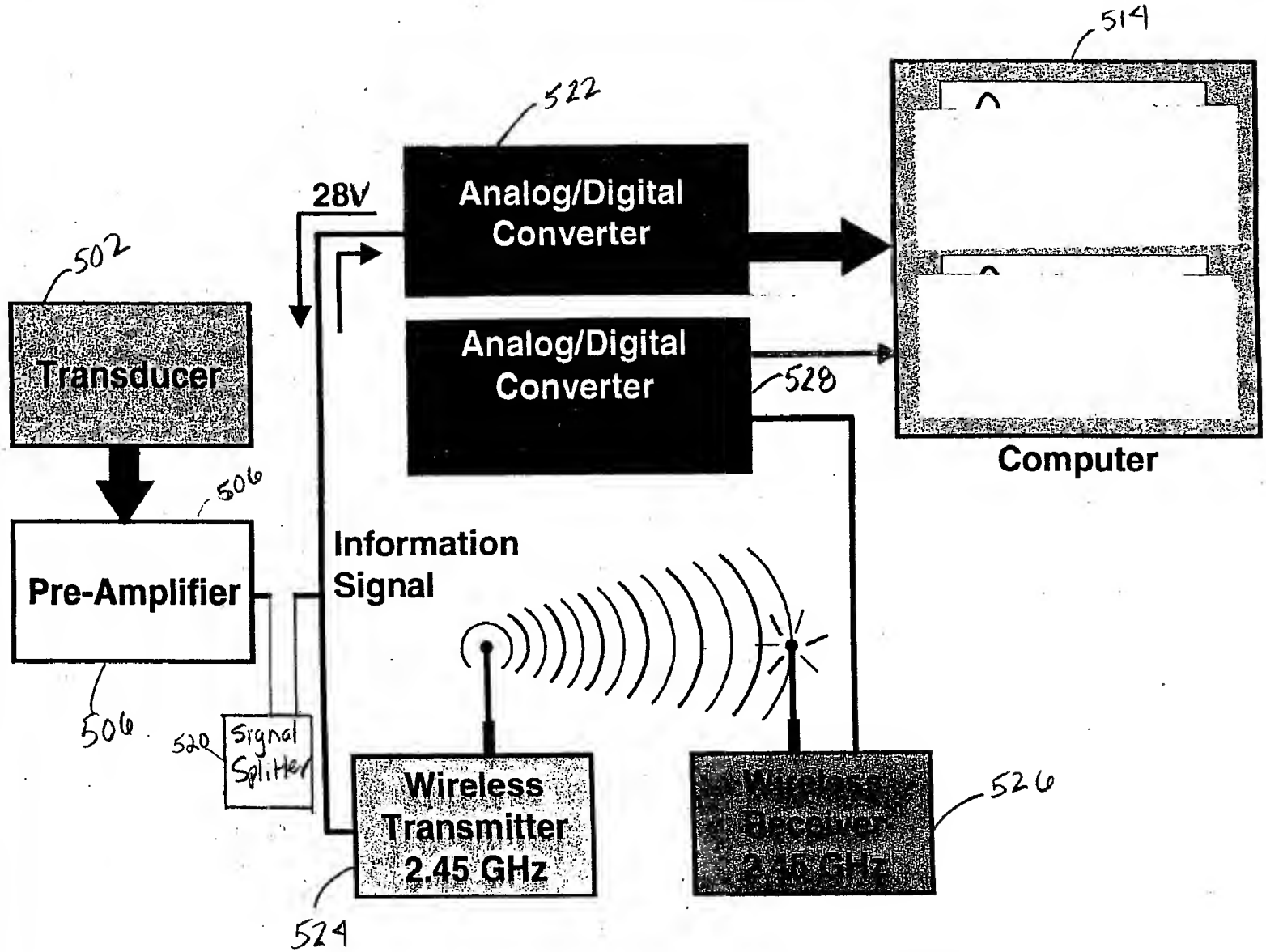

FIGURE 5

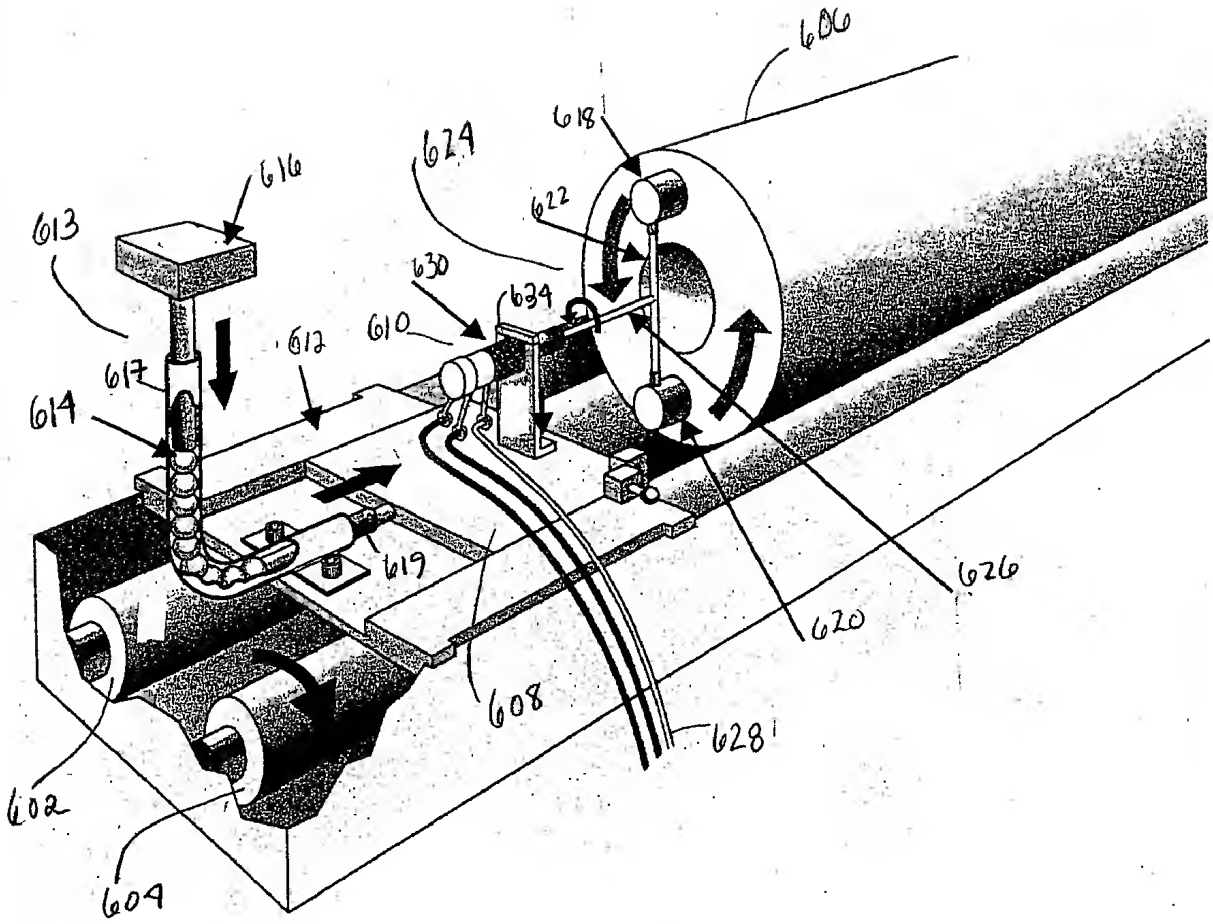
606
618
624
616
622
613
630
634
610
612
617
614
619
626
620
608
628
602
604

FIGURE 6

Proposed AE Implementation-

Non-contact

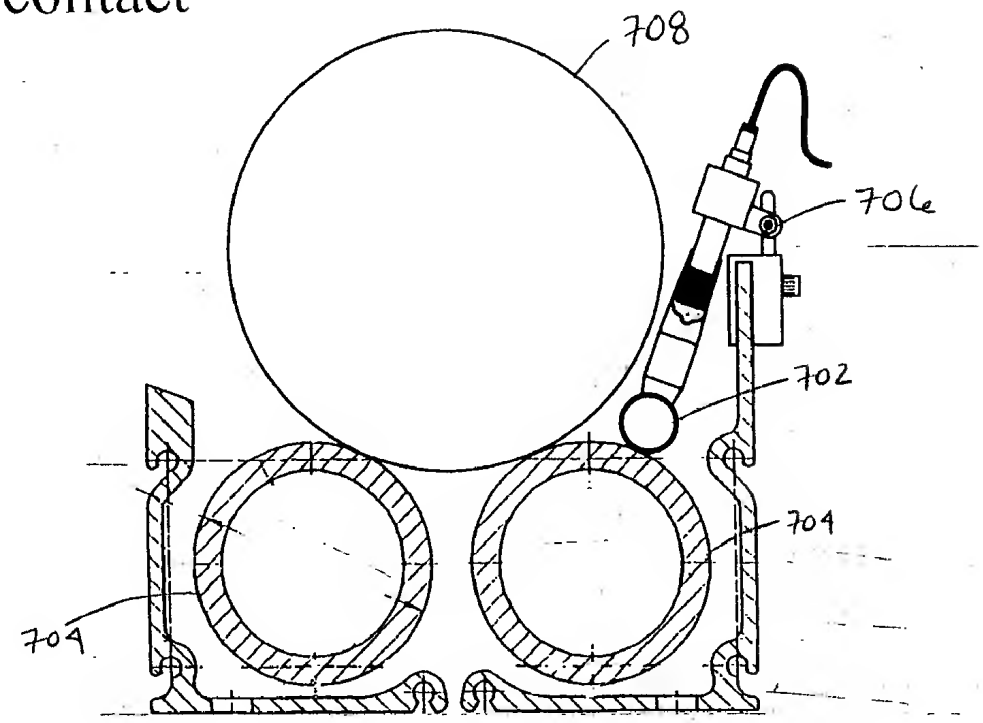

FIGURE 7

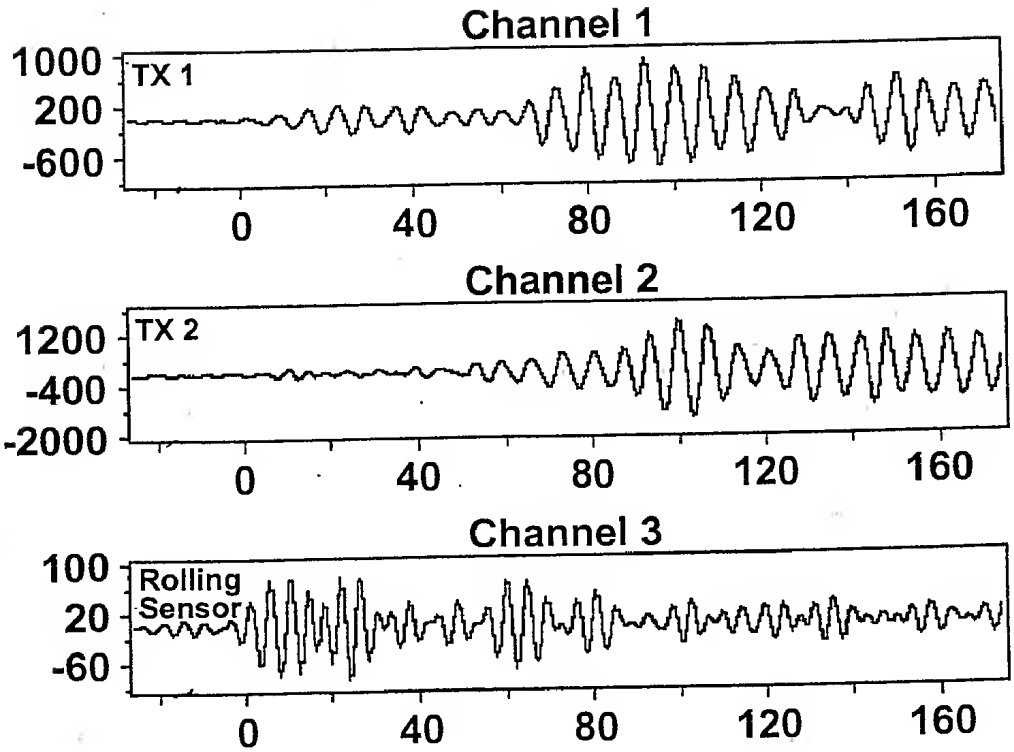

FIG. 8a

FIG. 8b

FIG. 8c

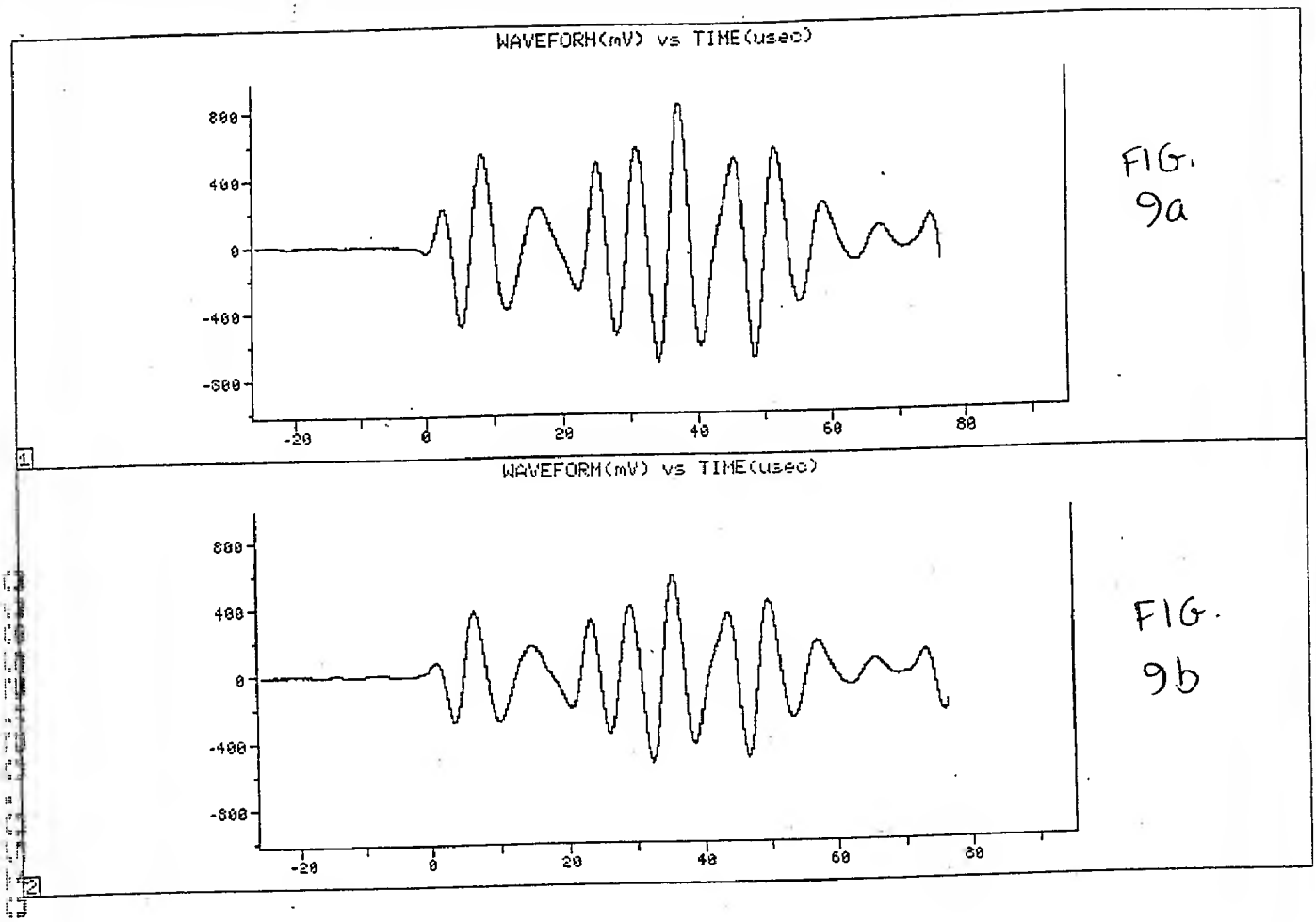
WAVEFORM(mV) vs TIME(usec)
800
400
0
-400
-800
-20
0
20
40
60
80
1
WAVEFORM(mV) vs TIME(usec)
800
400
0
-400
-800
-20
0
20
40
60
80
2

FIG. 9a

FIG. 9b

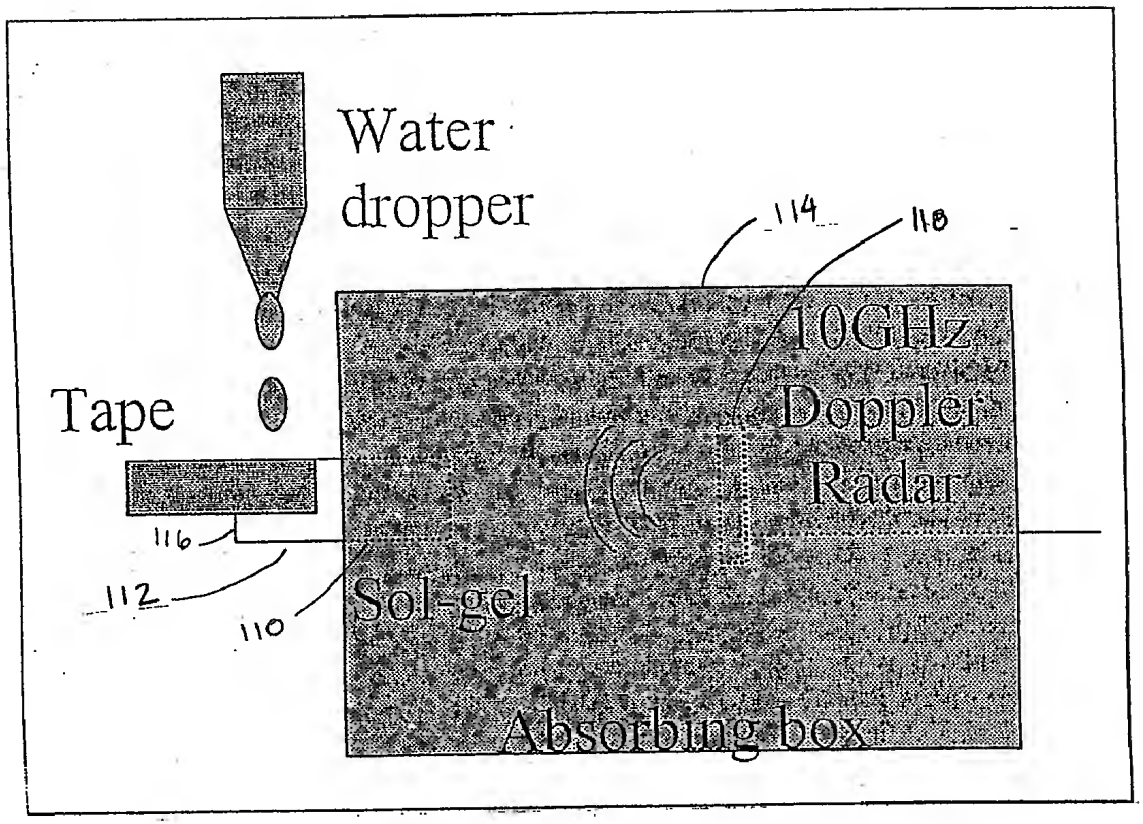
Water
dropper
114
118
10GHz
Doppler
Radar
Tape
116
112
110
Sol-gel
Absorbing box

FIGURE 10

FOSTER 021.25060

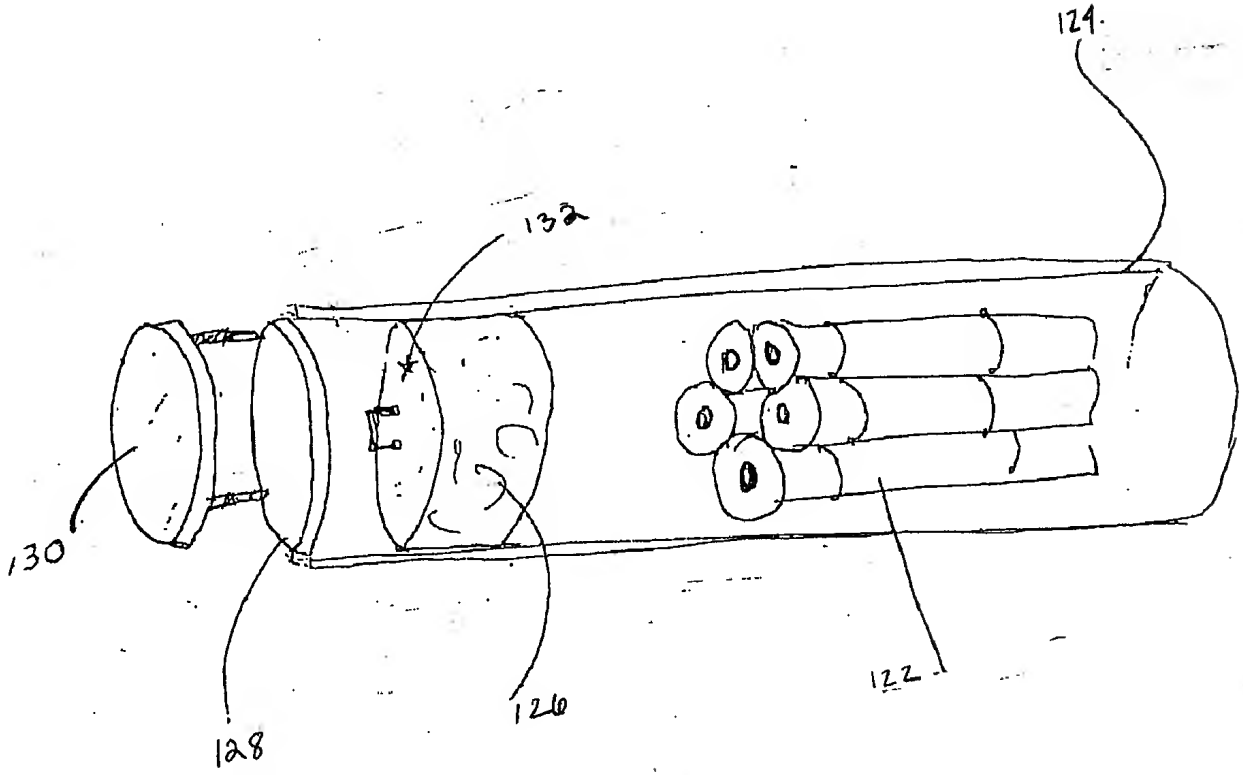

FIGURE 11

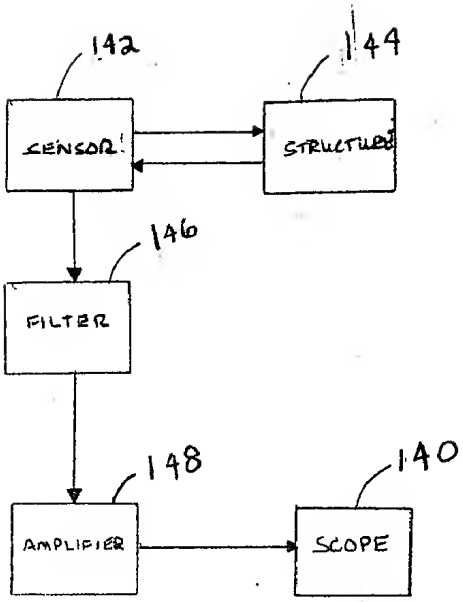
142
144
SENSOR
STRUCTURE
146
FILTER
148
140
AMPLIFIER
SCOPE

FIGURE 12